

**Application No.: 10/633,598**

**Docket No.: 30012821-2US (1509-438)**

**Amendments to the Drawings:**

The attached sheet of drawings includes changes to Figs. 1, 2A, 2B and 3A.

**Application No.: 10/633,598****Docket No.: 30012821-2US (1509-438)****REMARKS**

To obviate the objection to the drawings, the legend "PRIOR ART is appended to Figs. 1, 2A and 2B, reference numeral 320 has been added to Fig. 3A and the typographical errors in the specification reciting "332" and "334" have been respectively changed to -- 322 -- and -- 328 --. The objection to the specification concerning reference numeral "404" has been obviated by changing all occurrences of "receiver 404" to -- receiver --.

Claims 1, 5, 7, 11-16, 18 and 21-23 have been amended for clarity. All claims now require contact over a substantial width of the ground plane or return conductor. New claims 24-29 indicate the substantial width exceeds 50%, as the drawing clearly indicates.

Claims 11 and 16, indicated as containing allowable subject matter, are combined.

Claims 1 and 21 have been amended to overcome the rejection thereof based on JP6-111634 and Dahlgren et al. (USP 3,007,131).

JP '364 discloses a flexible wiring sheet (not a connector) having a shield layer coated in an insulating film with a plurality of conductors deposited on opposite sides of the insulating film. Because JP '364 discloses a wiring sheet, not a connector, neither the drawing nor the English language translation of the abstract of JP '364 discloses contact regions of the shield layer arranged to couple the shield layer to an electrical connector receiver.

Dahlgren discloses in Figures 1 and 4 an electrical connector having three layers of conductors. Each of these layers has a respective free end contact arranged to contact corresponding pin type terminals. Dahlgren does not disclose a second, middle, conducting layer that is a ground plane or a current return conductor. Additionally,

**Application No.: 10/633,598****Docket No.: 30012821-2US (1509-438)**

connecting pin type terminals to a current return conductor gives rise to the very problems addressed in the introduction of the present application, i.e., increased impedance at the contacts, see for example page 3 lines 9 to 17 of the application as filed. Increased contact impedance undesirably reduces rise times of edges of high frequency signal components. A wider area of contact overcomes this problem.

Claims 2-7, 9 and 10 are allowable with claim 1, upon which they depend. Claim 8, rejected as being obvious as a result of JP '634, Dahlgren and Argyrakis (USP 5,373,109) is allowable with claim 1, upon which claim 8 depends since Argyrakis obviously does not cure the deficiency in claim 1.

Applicants traverse the rejection of claims 11-15, 17-20, 22 and 23 under 35 USC §103(a) as being unpatentable over JP '634 in view Dahlgren et al., as applied to the claims above, and further in view of Yang (6,174,195). Applicants note the Office Action ignores the requirement of independent claims 11 and 21-23 for contact over a substantial width of the ground plane or return path. Indeed, this feature is not found in JP '634 or Dahlgren (as discussed above), nor is it disclosed by Yang. Yang discloses a connector with a ground terminal set (30) having a row of ground terminals (32). The ground terminals (32) do not contact a ground plane over a substantial fraction of its width. The ground terminals (32) represent a series of point contacts to a ground plane, as exemplified by the sharp free ends of terminals (32). Therefore, the ground terminals (32) represent a plurality of point contacts rather than a contact extending over the width of the ground plane. Such point contacts have problems associated with them as described in connection with the rejection of claim 1.

Application No.: 10/633,598Docket No.: 30012821-2US (1509-438)

In view of the foregoing amendments and remarks, allowance is in order.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 08-2025 and please credit any excess fees to such deposit account.

Respectfully submitted,

Nicholas JORDAN et al.

By: 

Allan M. Lowe  
Reg. No. 19,641

HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P. O. Box 272400  
Fort Collins, CO 80527-2400  
703-684-1111 telephone  
970-898-0640 telecopier  
AML:alw